

PATENT

Our Docket: P-LJ 4377

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Rajotte et al.

Serial No.: 09/676,475

Filed: September 29, 2000

For: METHODS FOR IDENTIFYING

LUNG HOMING MOLECULES

USING MEMBRANE DIPEPTIDASE

U.S. Patent and Trademark Office Box Sequence, P.O. Box 2327 Arlington, VA 22202

Examiner: M. Moran

Group Art Unit: 1631

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

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DATE OF DEPOSIT: November 20, 2002

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PAPER OR FEE)

Sir:

STATEMENT UNDER 37 C.F.R. § 1.821(f) and (q)

I hereby state that the content of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 CFR § 1.821(c) and (e), respectively, are the same.

I hereby state that the submission, filed in accordance with 37 C.F.R. § 1.821(g) herein does not include new matter.

Respectfully submitted,

November 20, 2002

Date

Registration No. 47, 956 (858) 535-9001 Telephone:

Facsimile: (858) 535-8949

CAMPBELL & FLORES LLP 4370 La Jolla Village Drive 7th Floor San Diego, California 92122 USPTO CUSTOMER NO. 23601



Document: Paper copy of sequence

listing, pages 1 through 113

Attorney Docket No: P-LJ 4377

Serial No.: 09/676,475

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 RAW SEQUENCE LISTING
 DATE: 10/12/2000

 PATENT APPLICATION:
 US/09/676,475
 TIME: 18:27:53

Input Set : A:\LJ4377.app
Output Set: N:\CRF3\10122000\1676475.raw

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3 <110 · APPLICANT: Ruoslahti, Erkki
               Pasqualini, Renata
               Rajotte, Daniel
       7 (120) - TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using Membrane Dipeptidase
      1) 4130. FILE REFERENCE: P-LA 4377
12 <140> CURRENT APPLICATION NUMBER: US/09/676,475
     13 <141> CURRENT FILING DATE: 2000-09-29
      15 (150 - PRIOR APPLICATION NUMBER: 09/042,107
     16 :15. PRIOR FILING DATE: 1998-03-13
13 :150 NUMBER OF SEQ ID NOS: 452
     20 170 · SOFTWARE: PatentIn Ver. 2.0
     22 210 - SEQ ID NO: 1
     23 - 211 LENGTH: 13
     24 212 TYPE: PRT
25 - 213 - ORGANISM: Artificial Sequence
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     28 323 OTHER INFORMATION! Description of Artificial Sequence: Synthetic
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     31 Cys Gly Phe Glu Cys Val Arg Gln Cys Pro Glu Arg Cys
     35 - 210 - SEQ ID NO: 2
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     37 - 312 - TYPE: PRT
     38 -213 ORGANISM: Artificial Sequence
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     41 \pm 23 \pm \text{OTHER} INFORMATION: Description of Artificial Sequence: Synthetic 43 \pm 400^\circ SEQUENCE: 2
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     4.5
     48 210. SEQ ID NO: 3
        111 LENGTH: 13
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     50 - 212: TYPE: PRT
     51 213. ORGANISM: Artificial Sequence
         220: FEATURE:
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     56 400: SEQUENCE: 3
     57 Cys Val Ala Leu Cys Arg Glu Ala Cys Gly Glu Gly Cys
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     63 <212. TYPE: PRT
     64 (213) ORGANISM: Artificial Sequence
     66 <220> FEATURE:
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Input Set : A:\LJ4377.app

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79 - 120 - FEATURE:
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89 - 212 - TYPE: PRT
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92 - 330 - FEATURE.
93 223. OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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95 Crs Arg Asp Val Val Ser Val Ile Cys
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100 310> SEQ ID NO: 7
101 311: LENGTH: 7
102 313 - TYPE: PRT
103 213 · ORGANISM: Artificial Sequence
105 (230 - FEATURE
106 + 223 +  OTHER INFORMATION: Description of Artificial Sequence: Synthetic
108 - 400 - SEQUENCE: 7
109 Leu Ser Pro Pro Tyr Met Trp
113 - 210 - SEQ ID NO: 8
114 - 111 - LENGTH: 8
115 - 212 - TYPE: PRT
116 - 213 - ORGANISM: Artificial Sequence
118 :020. FEATURE
119 \langle 223 \rangle OTHER INFORMATION: Description of Artificial Sequence: Synthetic
121 :400. SEQUENCE: 8
122 Gig The Gly Glu Val Glu Val Cys
123
126 <12100 SEQ ID NO: 9
127 (211) LENGTH, 7
128 (212) TYPE: PRT
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131 (120): FEATURE
132 \%23.9 OTHER INFORMATION: Description of Artificial Sequence: Synthetic 134 \%406)^2 SEQUENCE: 9
135 Tyr Ser Gly Lys Trp Gly Lys
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139 (210) SEQ ID NO: 10
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 RAW SEQUENCE LISTING
 DATE: 10/12/2000

 PATENT APPLICATION: US/09/676,475
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 TIME: 18:27:53

Input Set : A:\LJ4377.app

Output Set: N:\CRF3\10122000\I676475.raw

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179 x:211 x GENGTH: 9
180 x:212 x GYPE: PRT
181 x:213 x GRGANISM: Artificial Sequence
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188 1 5
191 :::10 - 3EQ ID NO: 14
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193 - 1212 - TYPE: PRT
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19^{\circ} -:213 - OTHER INFORMATION: Description of Artificial Sequence: Synthetic 199 :400 - SEQUENCE: 14
200 Cys Gly Glu Phe Lys Val Gly Cys
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204 :210: SEQ ID NO: 15
205 :211: LENGTH: 8
200 (212) TYFE: PRT 20" (213) GRGANISM: Artificial Sequence
209 - 220: FEATURE:
216 - (223): OTHER INFORMATION: Description of Artificial Sequence: Synthetic
212 -: 400: SEQUENCE: 15
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DATE: 10/12/2000

PATENT APPLICATION: US/09/676,475 TIME: 18:27:53 Input Set : A:\LJ4377.app Output Set: N:\CRF3\10122000\1676475.raw 213 Cys Thr Leu Arg Asp Arg Asn Cys 214 217 -210 - SEO ID NO: 16 218 <211 · LENGTH: 8 219 -1212> TYPE: PRT 320 3213 ORGANISM: Artificial Sequence 322 3220 FEATURE: 323 - 323 - OTHER INFORMATION: Description of Artificial Sequence: Synthetic 225 -400 - SEQUENCE: 16 125 Cys Ile Gly Glu Val Glu Val Cys 227 230 <210> SEQ ID NO: 17 231 <211 - LENGTH: 23 232 -: 212 - TYPE PRT 233 - 2213 - ORGANISM: Artificial Sequence 135 - 120 + FEATURE: 236 -: 221 - NAME/KEY: SITE 137 4222 - LOCATION: (1)..(10) 238 3223 OTHER INFORMATION: Xaa may be present or absent 240 :220 - FEATURE: 241 R2212 NAME, KEY: SITE 243 -: 221 - LOCATION: (14). . (23) 243 - 223. OTHER INFORMATION: Xaa may be present or absent. 245 HUDO FEATURE: 24% - 223 - OTHEF INFORMATION: Description of Artificial Sequence: Synthetic 248 -: 100 - SEQUENCE: 17) > 249 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Phe Glu Xaa Xaa Xaa .50 1 5 10 >> 252 Xaa Xaa Xaa Xaa Xaa Xaa Xaa 253 20 250 <010 SEQ 1D NO: 18 257 <0211 - LENGTH: 7 258 (212, TYPE, PRT 259 :213 ORGANISM: Artificial Sequence 261 - 220 - FEATURE: 262 (223) OTHER INFORMATION: Description of Artificial Sequence: Synthetic 264 <400 | SEQUENCE: 18 265 Leu Cys Thr Ala Met Thr Glu 266 1 5 269 -210: SEQ ID NO: 19 270 -: 211.- LENGTH: 8 271 - 212'- TYPE: PRT 171 02137 ORGANISM: Artificial Sequence 174 - 1201 FEATURE: 275 -223.- OTHER INFORMATION: Description of Artificial Sequence: Synthetic 27° -4400- SEQUENCE: 19 178 Gly Ile Ser Ala Leu Val Leu Ser 279 1 282 <210> SEQ ID NO: 20

RAW SEQUENCE LISTING

Input Set : A:\LJ4377.app Output Set: N:\CRF3\10122000\1676475.raw 283 <211> LENGTH: 8 284 <212 - TYPE: PRT 285 <213 - ORGANISM: Artificial Sequence 287 <220 + FEATURE: 238 - 223 - OTHER INFORMATION: Description of Artificial Sequence: Synthetic 290 -400 - SEQUENCE: 20 291 Cys Gly Lys Arg Tyr Arg Asn Cys 292 295 12102 SEQ ID NO: 21 296 (111 - LENGTH: 7 297 (312 - TYPE: PRT 298 <213 - ORGANISM: Artificial Sequence 300 :220 FEATURE 301 <223 - OTHER INFORMATION: Description of Artificial Sequence: Synthetic 303 -: 400 - SEQUENCE: 21 304 Ser Met 3er Ile Ala Arg Leu 305 308 :210 - SEQ ID NO: 22 309 211 · LENGTH: 7 310 1312 - TYPE PRT 311 313 · ORGANISM: Artificial Sequence 313 -1320 - FEATURE: 314 :323 - OTHER INFORMATION: Description of Artificial Sequence: Synthetic 316 <400 - SEQUENCE: 22 317 Val Ser Phe Leu Glu Tyr Arg 318 1 5 311 010 - SEQ ID NO: 23 302 4211 - LENGTH: 9 323 HD12 - TYPE PRT 324 < Cl3 - ORGANISM: Artificial Sequence 316 - 1220 - FEATURE: 327 - 4123 - OTHER INFORMATION: Description of Artificial Sequence: Synthetic 329 -: 120 - FEATURE: 330 :021 NAME THEY: UNSURE 331 - 1222 LOCATION: (1)..(2) 332 :223 OTHER INFORMATION: Unsure 334 -: 220 - FEATURE: 335 :221 - NAME FEY: UNSURE 336 :222 - LOCATION: (4)..(7) -) Cys is at location 8. Do you mean 9? 337 (123) OTHER INFORMATION: Unsure 339 :220 FEATURE 340 :221: NAME FEY: UNSURE 341 :222: LOCATION: (8) 342 :223: OTHER INFORMATION: Unsure 344 -:400% SEQUENCE: 23 W--> 345 Xaa Xaa Cys Xaa Xaa Xaa Xaa Cys 349 -: 210: SEQ ID NO: 24 350 <211> LENGTH: 9

DATE: 10/12/2000

TIME: 18:27:53

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/676,475

FYI

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

DATE: 10/12/2000

PATENT APPLICATION US/09/676,475

TIME: 18:27:54

Input Set : A:\LJ4377.app
Output Set: N:\CRF3\10122000\1676475.raw

 $L\colon\!12\ \text{M}\colon\!270\ \text{C}\colon\!\text{Current Application Number differs. Replaced Application Number}$ L:12 M:270 C: Current Application Number differs, Replaced Application Number differs, Replaced Current Filing Date L:249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:470 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 L:489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 L:4405 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:332 L:4405 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:332 L:4584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:345 L:4662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:345 L:4860 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:366 L:4880 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:366 L:4949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:372 L:5370 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:372 L:5731 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:431 L:5734 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:431 L:5737 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:431 L:5738 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:432 L:5760 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:432 L:5778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:433 L:5801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:434 L:5804 M:341 W: (47) "n" or "Xaa" used, for SEQ ID#:434 L:5804 M:341 W: (47) "n" or "Xaa" used, for SEQ ID#:434 L:5804 M:341 W: (47) "n" or "Xaa" used, for SEQ ID#:436 L:5843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:436